dunetpc - Feature #22524

Make initial pedestal estimate non-integral

05/07/2019 08:37 AM - David Adams

Status:	Closed		**Start date:**	05/07/2019
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:				

Description

I noticed that the pedestals in protoDUNE RawDigits were always integral. My understanding is that the decoder was returning (for each channel) the ADC code where the mean value fell. On my request, Tom modified that code so that it now returns a non-integral value as though the counts in each bin were uniformly spread.

I see the pedestal values in RawDigit are now non-integral.

History

#1 - 05/07/2019 10:07 AM - David Adams

- *File new-chmet_pedvary_tps0_run007705.png added*

- *File old-chmet_pedvary_tps0_run007705.png added*

I attach plots showing the event-to-event variation (RMS for 50 events) of the pedestals with the old and new code. There is a decrease in the variation with the new code.

Files

old-chmet_pedvary_tps0_run007705.png	23.1 KB	05/07/2019	David Adams
new-chmet_pedvary_tps0_run007705.png	22.8 KB	05/07/2019	David Adams